



New Hampshire Land Surveyors Association

47th Annual Meeting & Equipment Show



THANK YOU 2016 SPONSORS



December 1—2, 2016

Courtyard Marriott Grappone
Conference Center

70 Constitution Avenue, Concord, NH



PROGRAM AT A GLANCE

NHLSA 47th Annual Meeting & Equipment Show

Thursday
December 1, 2016

REGISTRATION—PRE-FUNCTION AREA

SILENT AUCTION

The silent auction is back!
See page 6 for more details.

7:30 AM

◆ Registration Desk Open (Pre-function Area)

◆ Getting Started (Pre-function Area)

Fresh baked croissants, fruit breads, muffins, Grappone signature whole grain and gluten free toasting breads, assorted yogurts, organic coffee, assorted hot teas, orange and cranberry juices

(Salon A)

8:00 AM—10:00 AM

(1) Session 1: Unwritten Rights in Land with Emphasis on Acquiescence—Donald A. Wilson

10:00 AM—10:15 AM

◆ Mid-Morning Refresh (Pre-function Area)

Refresh of organic coffee and assorted teas, cubed fresh fruit, Coca-Cola soft drinks, Dasani bottled water and Glaceau vitaminwater

10:15 AM—12:00 PM

◆ Session 1: continued

12:00 PM—1:00 PM

◆ Lunch (Salon A)

Grappone Sandwich Board: BBQ chicken wrap, toasted chickpea and Tzatziki pita, smokehouse ham and Swiss, grain finished angus beef, potato salad, edamame bean salad, tossed salad, pickles and potato chips. Includes Chef's Seasonal Soup, Freshly Brewed Organic Coffee and Decaf, Assorted Herbal Teas, Assorted Coca-Cola Soft Drinks, and Aquafina Bottled Waters

1:00 PM—2:15 PM

◆ Session 1: Continued

2:15 PM—2:30 PM

◆ Afternoon Stretch (Pre-function Area)

Refresh of organic coffee and assorted teas, display of cookies and finger desserts, fresh whole seasonal fruit, Coca-Cola soft drinks, Dasani bottled water and Glaceau vitaminwater

2:30 PM—3:30 PM

◆ Session 1: continued

3:30 PM—4:00 PM

◆ Seminar wrap-up, Q&A, & Committee Meetings

4:00 PM—6:00 PM

◆ Business Meeting, Awards (Salon A)

6:00 PM—7:00 PM

◆ Reception

Hors d'oeuvres: Domestic Artisan Cheese Display; Vegetable Crudité Display

7:00 PM—9:00 PM

◆ Banquet (State Rooms)

Entrée Choices: Grilled 'Cowboy' Rib Eye Steak finished with barbecue rub, bourbon sweet potato puree, grilled vegetable **OR** Chicken Statler 151 Oven roasted breast of chicken, red blackberry coulis with a dash of 151 Bacardi, risotto cake, chef's seasonal vegetable; includes Traditional tossed salad with hydroponic greens, vine ripened tomato, cucumber, carrot, house Italian and Ranch dressings, roll and butter, Dessert (Viennese Dessert Trio—strawberry dipped in chocolate, mini cannoli, lime cheesecake), Freshly Brewed Organic Coffee and Decaf, Assorted Herbal Teas

Foundation Benefit Auction with Terry Eldredge will begin during dessert.

Schedule Subject to Change -
Updates will be posted
in the Bulletin Board

2.0 CEUs for session 1

PROGRAM AT A GLANCE

NHLSA 47th Annual Meeting & Equipment Show

Friday

December 2, 2016

7:30 AM

◆ Registration Desk Open (Pre-function Area)

◆ **Getting Started (Exhibit Hall)**

Same as Thursday

7:30 AM—9:00 AM

◆ **Past Presidents' Breakfast (Pierce Room)**

8:00 AM—4:00 PM

◆ **Exhibit Hall Open (Salon A/B/C)**

Concurrent Sessions

8:00 AM—9:00 AM

◆ **Session 2: How SUE Can Provide for Better Design, Cost Savings, and Damage Prevention for America's Future Infrastructure Improvements (Merrimack Room)**

8:00 AM—9:00 AM

◆ **Session 3: Environmental Regulations & Compliance - a Surveyor's Responsibility (Concord Room)**

8:00 AM—10:00 AM

◆ **Session 4: Metadata and Other Stuff We Don't Want to Have to Think About (Capital Room)**

9:00 AM—10:00 AM

◆ **Session 5: Accessing Airborne Light Detection and Ranging (LiDAR) Data in NH (Merrimack Room)**

9:00 AM—12:00 PM

◆ **Session 6: Subsurface Systems Bureau Update (Concord Room)**

9:00 AM—10:00 AM

◆ **Session 7: NESS Roundtable (Pierce Room)**

10:00 AM—10:15 AM

◆ **Mid-Morning Refresh (Exhibit Hall)**

Same as Thursday

10:15 AM—12:00 PM

◆ **Session 8: Basic Survey Research Review (Merrimack Room)**

10:15 AM—12:00 PM

◆ **Session 9: Carlson Software - Tips & Tools for Creating Surfaces (Capital Room)**

10:15 AM—11:15 AM

◆ **Session 10: Women in Surveying (Pierce Room)**

REGISTRATION—PRE-FUNCTION AREA

11:15 AM—12:15 PM

◆ **Session 11: Intro to UAV (Mapping) Operations (Pierce Room)**

12:00 PM—1:30 PM

◆ **Lunch (Salon A/B/C)**

Pizza and Salad: Traditional and flatbread cheese, pepperoni and vegetable pesto pizzas. Caesar style salad, antipasto salad and edamame bean salad, Chef's Seasonal Soup, Freshly Brewed Organic Coffee and Decaf, Assorted Herbal Teas, Assorted Coca-Cola Soft Drinks, and Dasani Bottled Waters and Dessert

Concurrent Sessions Continued

12:00 PM—2:00 PM

◆ **Session 12: Exclusive Viewing of Exhibit Hall (Salon A/B/C)**

2:00 PM—4:00 PM

◆ **Session 13: Surveying in Floodplains (Merrimack Room)**

2:00 PM—4:00 PM

◆ **Session 14: Wetlands Bureau and Shoreland Program Legislative Updates (Concord Room)**

3:00 PM—3:15 PM

◆ **Afternoon Stretch (Exhibit Hall)**

Same as Thursday

2:00 PM—4:00 PM

◆ **Session 15: Utilizing Web-Based Enterprise Solutions (Capital Room)**

2:00 PM—4:00 PM

◆ **Session 16: Metadata and Other Stuff—Encore (Pierce Room)**



BADGES REQUIRED - ALL EVENTS

Please help your fellow members and guests identify you by name by wearing your badge.

NHLSA 47th Annual Workshop Schedule

Courtyard Marriott Grappone Conference Center - Concord, NH

REGISTRATION: 7:30 AM	December 1, 2016	Pre-function Area
Salon A	2.0 CEUs	Session 1: Unwritten Rights in Land with Emphasis on Acquiescence 8:00 AM - 4:00 PM

Sign-in/out to receive continuing education units (1/4 ceu will be awarded for each hour session attended)
 (must attend entire session to receive full credit)

REGISTRATION: 7:30 AM	December 2, 2016	Pre-function Area
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TIMES	Salon C	Merrimack Room	Concord Room	Capital Room	Pierce Room
7:30 AM	Continental Breakfast in Exhibit Hall				Past Presidents Breakfast 7:30 - 9:00 am
8:00 AM	OPEN FOR LUNCH & EXHIBITORS	Session 2: 8:00 - 9:00 am How SUE Can Provide for Better Design	Session 3: 8:00 - 9:00 am Environmental Regulations & Compliance	Session 4: 8:00 - 10:00 am Metadata and other stuff we don't want to have to think about	
8:30 AM		Session 5: 9:00 - 10:00 am Accessing Airborne Light Detection...	Session 6: 9:00 am - 12:00 pm State Subdivision and Septic System Approvals	Session 9: 10:15 am - 12:00 pm Carlson Software - Tips & Tools for Creating Surfaces	Session 7: 9:00 - 10:00 am NESS Roundtable
9:00 AM		Session 8: 10:15 am - 12:00 pm Basic Survey Research Review			Session 10: 10:15 - 11:15 am Women in Surveying
9:30 AM					Session 11: 11:15 am - 12:15 pm Intro to UAV (Mapping) Operations
10:00 AM		Lunch 12:00 pm - 1:30 pm	Session 12: Salon A/B 12:00 pm - 2:00 pm Viewing of Exhibit Hall		
10:30 AM					
11:00 AM					
11:30 AM					
12:00 PM				Session 13: 2:00 - 4:00 pm Surveying in Floodplains	
12:30 PM					
1:00 PM					
1:30 PM					
2:00 PM				Session 14: 2:00 - 4:00 pm Wetlands Bureau & Shoreland Updates	
2:30 PM					
3:00 PM					
3:30 PM					
4:00 PM				Session 15: 2:00 - 3:00 pm Utilizing Web-Based Enterprise Solutions	
4:30 PM					
5:00 PM					
Certificates will be mailed					

SEMINAR★ THURSDAY, DECEMBER 1st

NHLSA 47th Annual Meeting & Equipment Show

(1) Unwritten Rights in Land with Emphasis on Acquiescence

Donald A. Wilson

This one day seminar contains a discussion of the basic elements of title and the transfer thereof. It focuses on the unwritten means of acquiring title and rights in land independent of the record title. Discussed are the following doctrines: Adverse Possession, Acquiescence, Estoppel, Agreements and Practical Location. Acquiescence, being the area most commonly encountered by the surveyor in everyday practice, will be examined in detail. A brief overview of New Hampshire court decisions will be included along with selected decisions from other jurisdictions.

8:00am—4:00pm
(Salon A)

2.0 NH LLS CEUs

Don, president of Land & Boundary Consultants, has been in practice for over 50 years, consulting to groups throughout the United States and Canada. He is both a licensed land surveyor and professional forester, having conducted more than 500 programs on a variety of topics, including description interpretation, boundary evidence, law, title problems, and forensic procedures.



The latest title, *Land Tenure, Boundary Surveys and Cadastral Systems*, co-authored with George Cole, will be available for purchase at the seminar. The forthcoming title, *Boundary Retracement: Principles and Processes*, is scheduled to be released on March 3rd of 2017. If pre-ordered at the seminar, the discounted price will be honored and there will be no cost for shipping.

Mr. Wilson has more than 200 technical publications in several areas, and has been involved with over 60 books, which include titles on Maine history and several books on fishing. Besides being co-author of *Evidence and Procedures for Boundary Location* and *Boundary Control and Legal Principles*, he is author of *Deed Descriptions I Have Known...But Could Have Done Without*, *Easements and Reversions*, *Interpreting Land Records* and *Forensic Procedures for Boundary and Title Investigation*. His latest titles are *Easements Relating to Land Surveying and Title Examination* and a co-authorship entitled, *Land Tenure, Boundary Surveys and Cadastral Systems*.

Don is an instructor for RedVector's on-line professional courses and a regular presenter in the University of New Hampshire's Professional Development Program. He is part owner of and lead instructor in Surveyors Educational Seminars and a regular seminar coordinator for the University of New Hampshire. In his professional practice, Don has testified numerous times, in a variety of courts, on boundary and title matters.

Thursday's Sponsors



Continental Breakfast



Morning Break



Lunch



Afternoon Break

SPECIAL EVENTS ★ THURSDAY, DECEMBER 1ST & FRIDAY, DECEMBER 2ND

NHLSA 47th Annual Meeting & Equipment Show

NHLSA EXECUTIVE & COMMITTEE MEETINGS

Aside from the Executive Committee, I welcome all committees the opportunity to meet with your committee members for this brief period before the Annual Business Meeting.

Thursday, December 1, 2016
Salon A

3:30 PM - 4:00 PM

NHLSA ANNUAL BUSINESS MEETING, AWARDS, & INSTALLATION CEREMONY

The New Hampshire Land Surveyors Association is wrapping up the year at our 47th Annual Meeting and Equipment Show. Everyone is invited to attend our Annual Meeting where important agenda topics will be addressed. These include an update on the progress of the website, bylaw amendments on the building fund and membership dues. We look forward to seeing you all there.

Darren Hardy, LLS
President

Salon A

4:00 PM - 6:00 PM



Reception

NHLSA RECEPTION WITH HORS D' OEUVRES, CASH BAR, AND NHLSF RAFFLE

After the business meeting, and if elected, I will be your new President, and I invite you to join me for the evening events.

Our reception, with hors d'oeuvres and cash bar, will include the

50/50

NHLSF 50/50 raffle. Tickets will be sold throughout Thursday, and will close on Friday at noon. The winning ticket will be chosen during the afternoon break. Look for Tim Mallette, President Elect and Corey Colwell, Vice President, if elected, with the tickets.

Pre-function Area

6:00 PM - 7:00 PM

NHLSA AWARDS BANQUET AND NHLSF LIVE BENEFIT AUCTION

Now that everyone has warmed up with a casual atmosphere of mingling with colleagues, and hopefully not spending all of your money on raffle tickets and saved some for the possible bidding wars of the NHLSF Live Auction, once again hosted by the one and only Terry Eldredge. I invite you to join me for the Awards Banquet, enjoy a good meal, continued conversation with friends, or someone you have yet to meet, and the fun will continue during dessert when Terry takes the stage along with our generous volunteers.

The New Hampshire Land Surveyors Foundation is accepting donations, small, large, or in between. The proceeds will benefit the Equipment Fund. We can always expect a wide variety of items that will interest all banquet attendees, members and guests alike. If you have any items that you would like to donate to the auction, please fill out the enclosed auction form and email it to Barbara ahead of time or drop it off with the item at the registration desk.

And, for the winning Map Contest entries, don't forget to stop by the registration table to claim your drink ticket!

We will end the evening with a door prize. Members who register for two days will receive a ticket during registration, and you must be present to win.

Since the 50/50 raffle extends through two days, you need not be present to win, just write your name on the ticket you drop. The winning ticket holder will receive half of the proceeds with the remaining half donated to the Equipment Fund.

Glen Johnson, LLS
President-Elect

State Rooms

7:00 PM - 9:00 PM



SILENT AUCTION

The Annual Meeting Committee will designate donated items to either the Live or Silent Auction.

The Silent Auction will open during registration on Friday and close following the afternoon break. When you recycle your badge at the end of the day, check out the list of lucky recipients. If you can't stay for the entire day, please consider making arrangements for picking up your winning item.

If you have an item for the auction but will not be able to attend, please contact Barbara Cormier or Glen Johnson and they will make sure it gets on the auction block.

Friday, December 2, 2016

PAST PRESIDENTS ASSEMBLY & WORKSHOPS ★ FRIDAY, DECEMBER 2nd

NHLSA 47th Annual Meeting & Equipment Show

Friday's Sponsors

Eastern Topographics

AERIAL MAPPING SPECIALISTS

Past Presidents Breakfast

PAST PRESIDENTS BREAKFAST

Darren Hardy, current Chair, welcomes all Past Presidents to attend and partake in the discussion on the following topics:

- ◆ Elect a taker of minutes
- ◆ Review our standing committee's founding document
- ◆ Report on discretionary fund
- ◆ Update about NSPS Final Point program
- ◆ PPB sponsorship

Pierce Room

7:30 AM - 9:00 AM

1/4 continuing education unit will be awarded for each hour session attended

(2) CI/ASCE 38-02 & Subsurface Utility Engineering (SUE)

How SUE Can Provide for Better Design, Cost Savings, and Damage Prevention for America's Future Infrastructure Improvements

Blake A. Leclair – Project / IT Manager for BSI Engineering, Inc.

Join us as we explore the world of Subsurface Utility Engineering (SUE) and the CI/ASCE standard that has brought about one of the most unique engineering disciplines in recent history. We will discuss the CI/ASCE 38-02 "Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data" and how it applies to today's complex infrastructure needs. We will also discuss how SUE can be incorporated into the survey / design process as well as the equipment & methodologies used by the SUE industry.

With over 15 years' experience as a utility design and subsurface utility engineer for

major infrastructure improvement projects; Mr. Leclair is able to offer a unique perspective on providing SUE services with respect to the challenges faced by today's design engineers.



Mr. Leclair is well versed with geophysical prospecting methods and utility condition assessment techniques as well as the equipment utilized by today's SUE service industry allowing him to provide a vast educational insight into the world of SUE. As an industry leader in his field, Mr. Leclair is able to purvey a comprehensive understanding of the information that is possible to obtain from the proper use of SUE services and how best to incorporate SUE into today's complicated urban infrastructure projects.

Prior to working with BSI Engineering, Inc., Mr. Leclair worked as a Design Engineer for the Boston Water & Sewer Commission where he gained a great deal of experience working on water & sewer rehabilitation/replacement, combined sewer separation and storm drainage projects in one of the country's oldest and most complicated infrastructure's.

**8:00 AM - 9:00 AM
Merrimack Room**

0.25 NH LLS CEUS



Continental Breakfast

(3) Environmental Regulations and Compliance - a Surveyor's Responsibility

Randall Shuey

The presentation will focus on environmental regulations and the pit falls that often occur. As one of the first people on the site for a proposed development, surveyors often have a unique opportunity to view the site. Understanding how federal and state regulations fit into the process can aid the surveyor in their job. We will look at federal rules including storm water, endangered species and historic properties. In addition we will look at the nexus of these regulations with State and local rules. The goal is to provide an understanding of the regulations and where a surveyor fits into them. Finally we will look at some project examples and the complications that can arise.

WORKSHOPS ★ FRIDAY, DECEMBER 2nd

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Randall is a certified wetland and soil scientist with over 25 years' experience working on all types and phases of projects from design, through permitting and construction. Mr. Shuey has served on the boards of the Soil Scientist Society of Northern New England, and the Northeast Chapter International Erosion Control Association. He is an approved trainer with EnviroCert International and is the Northeast Region Representative to the EnviroCert Certification Committee. He has provided consulting services across New England and training across the United States.



8:00 AM - 9:00 AM
Concord Room

0.25 NH LLS CEUs

Note: See page 12 for DES approved credits.

(4) Metadata and Other Stuff We Don't Want to Have to Think About

Daniel Martin, LS

So you've tied your survey to geodetic control.....now what? How do you document what you have done so that you and others can make use of and build on the survey?

In the first part of this workshop, we will discuss the many different versions of the datums, coordinate systems, height systems, and geoid models we use and what is needed to properly document their use. In the second part of this workshop, I will provide an overview of some of the new and not so new tools that NGS has and will describe their use.

Dan works for the National Geodetic Survey and has been the Northeast Regional Geodetic Advisor since May of 2015. As the Regional Advisor, he instructs local surveyors, state and municipal agencies, and the geospatial community at large, on how to use and preserve the National Spatial Reference System, and provides liaison between the National Geodetic Survey and the States of ME, NH, VT, MA, CT, RI, NY, and NJ, as well as other federal agencies. He worked in the Route Survey and Geodetic Survey sections of the Vermont Agency of Transportation from 1988 through 2003, and held the position of Geodetic Program Supervisor for the Agency from 1999 through 2003. In 2003 Dan began his career with the National Geodetic Survey as the Vermont State Geodetic Advisor. Dan is a Past President of the American Association for Geodetic Surveying (AAGS), and is a Fellow Member of the American Congress on Surveying and Mapping. He is also a member of the Vermont Society of Land Surveyors and the New Hampshire Land Surveyors Association.



8:00 AM - 10:00 AM
Capital Room

0.50 NH LLS CEUs

(5) Accessing Airborne Light Detection and Ranging (LiDAR) Data in New Hampshire

Fay Rubin

This session will start with a presentation covering the basics of LiDAR technology and the collection of data. Fay will then go into more detail about how to access the data from GRANIT and the meta data behind the product, how it is georeferenced, expected accuracy, etc. As always there will be time for questions and answers.

Fay has served as Director of the GRANIT System, the NH statewide geographic information system, since its inception in the mid 1980's. In that capacity, she has overseen a variety of data development, system implementation, and application projects addressing planning and resource management issues at the state, regional and local levels. In addition to core GRANIT clearinghouse activities, current projects include collaborating on the acquisition and management of statewide LiDAR topographic data, developing land use/impervious cover data sets, and working on expanded web viewing platforms (including GRANITView-II and the Coastal Viewer) to support data exploration and decision-making by NH stakeholders. Fay also leads the University of New Hampshire's Cooperating Technical Partnership with FEMA, and under that program is active in various floodplain mapping, risk management, and hazard mitigation initiatives in the state.



9:00 AM - 10:00 AM
Merrimack Room

0.25 NH LLS CEUs

(6) Subsurface Systems Bureau Update

Robert A. Tardif, P.E., Administrator
Subsurface Systems Bureau

Besides the discussion on the recent changes to the Subsurface System Bureau's rules. Rob's presentation will also include a discussion on Lot Line Adjustments.

Participants will be awarded 3 credit hours for Subsurface Systems Bureau continuing education requirements for permitted sewage disposal system designers and installers.

Remember to sign in/out for each session to receive continuing education units (1/4 CEU for each hour session attended). Attendees must attend entire session to receive full credit.

WORKSHOPS ★ FRIDAY, DECEMBER 2nd

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Rob graduated from the State University of New York at Buffalo with a B.S. in Civil Engineering and received his P.E. license in 1999. He started working for the New Hampshire Department of Environmental Services in 1992. Rob initially worked in Hazardous Waste Compliance (compliance work), then Solid Waste Management (permitting), and Residuals Management (permitting). Rob started in the Subsurface Systems Bureau in 2002 as the Construction Section supervisor. In June of 2009, Rob took over the duties of Subsurface Systems Bureau administrator.



9:00 AM - 12:00 PM **0.75 NH LLS CEUs**
Concord Room

Note: See page 12 for DES approved credits.

(7) North East Surveying Societies (NESS) Roundtable

Darren Hardy, LLS
Moderator

The NESS continues to have informal meetings at each NESS state conferences. Join me and other Presidents of each North East state, and NSPS in the ongoing dialogue on the issues surrounding all surveying societies, and the North East in particular.

Follow-up on outstanding topics from the last meeting will be discussed, i.e. the need for an official repository for NESS documents, among other issues.

9:00 AM - 10:00 AM **0.25 NH LLS CEUs**
Pierce Room



Morning Break

Schedule Subject to Change -
Updates will be posted
in the Bulletin Board

(8) Basic Survey Research Review

Brian Nelson Burford

This class will discuss what types of records are available to land surveyors, and where to find them. Also covered will be some ideas for organizing research notes, to facilitate explanations of evidence to clients, to angry abutters, to lawyers and judges, and to yourself 20 years from now.

Brian began surveying in New Hampshire in 1972, and was licensed in 1983. He has worked for surveyors, lawyers, and land owners on boundary and title issues. Since 1995, he has worked for the NH State Archives, and since 2010 has been the NH State Archivist. Throughout these decades, his work has been the finding and interpreting primary sources for information about the occupation, use, and conveyance of land in New Hampshire.



10:15 AM - 12:00 PM **0.50 NH LLS CEUs**
Merrimack Room

(9) Carlson Software - Tips and Tools for Creating Surfaces

Rick Ladd

Explore tips and tools to make better surface models and contours in Carlson software. Use of objects, points, and breaklines will be explained and discussed. Existing ground and proposed grading, labeling, and analysis will also be covered.

Rick is the owner of CADNET Services, LLP, a CAD and IT consulting firm located in Manchester NH. Rick Ladd has been a member of NHLSA in one capacity or another since 1988, and CADNET is currently a sustaining member.



10:15 AM - 12:00 PM **0.50 NH LLS CEUs**
Capital Room

(10) Women in Surveying

Pepper Bechard, Cynthia Boisvert, Karen Lovejoy, Wendy Pelletier

This class will review the US Small Business Administration's Women Owned Small Business Repository self-certification, including the following:

- ◆ Benefits of certification
- ◆ Qualification Requirements (WOSB/EDWOSB)
- ◆ Review what NAICS Codes are and how to find one

WORKSHOPS ★ FRIDAY, DECEMBER 2nd

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- ◆ Steps necessary to self-certify as a women owned or economically disadvantaged women owned small business
- ◆ Gathering required information/documentation
- ◆ Registration in "SAM" system for Awards Management
- ◆ Information and document processing in US SBA Repository
- ◆ Representing new status in SAM

We will then move onto a roundtable discussion of Women in Surveying. Topics will include:

- ◆ How we got into surveying; education, job opportunity, or through a relation profession
- ◆ How we survey in the woods, city, right of ways, hot, cold, bugs, etc.
- ◆ Tips that we have learned or been taught in our careers
- ◆ Problems that we have, or have overcome being a minority in this industry
- ◆ And anything else members may wish to discuss.

Cynthia has been an LLS for 34 years. She began her survey career in North Conway working for HEB Engineers and Burnell Land Surveying. After moving to southern NH in 1980, she worked for Allan Swanson, then Cuoco & Cormier, being VP of Survey Services for 8 years, before starting her own firm, Arago Land Consultants, LLC in 2014. For NHLSA, she was Publications Director in the 90's, and is currently completing her run thru the Presidential positions.

Ms. Bechard has been with Meridian Land Services, Amherst, NH, since 2003 and accepted the position of Accounting Manager in 2009. She is in charge of financial activities for the company including day to day processing, as well as monthly closings and yearly reviews. She is also responsible for employee benefit administration and management of accounting and administrative staff. She has been in the accounting industry since 1993 and holds a degree in Accounting from Southern NH University.

Karen is a NH Licensed Land Surveyor who has been surveying in the Seacoast area for nineteen years. After graduating from the Thompson School at UNH, Karen began her survey work at Trittech Engineering, Corporation, Dover, NH. In 2000 she joined Ambit Engineering, Inc., Portsmouth, NH where she worked for 15 years. Karen recently started Lovejoy Consulting, LLC in Eliot, Maine which offers boundary line research services to attorneys, surveyors, title researchers and utility companies.

Wendy is a 1987 graduate of Vermont Technical College. She has been licensed and self employed since 2009. Wendy's business has expanded over the past year to include 5 employees and is now known as Cardinal Surveying and Land Planning. With the addition of staff and affiliates she is now focusing on

larger jobs which include local and state permitting, as well as still providing boundary help to the homeowner. Wendy serves on the Sullivan Conservation Commission, is treasurer of Joy's Network-a cancer resource center and is very active in the local community. When not working, Wendy enjoys hiking and kayaking with her 2 puppies Stella and Luna, and also enjoys renovating her 1960's A-frame. Wendy is looking forward to serving you as the Association's treasurer for another year.

10:15 AM - 11:15 AM
Pierce Room

0.50 NH LLS CEUs

Note: This class will resume in Salon C
11:15 AM - 12:15 PM

(11) Intro to UAV (Mapping) Operations

Ian Ray

This talk will give a high level view into using unmanned aerial vehicles (UAVs) on a day to day basis for both internally & externally contracted flights, and will cover the main considerations in deciding when to use UAVs for a particular project. Topics will include recent regulatory changes from the FAA, an overview of current UAV hardware & sensors, and how this technology can be applied for both photogrammetric mapping & general progress documentation. The presentation will run approximately 30 minutes, and will open to a general Q&A session with the audience afterwards.

Ian is a co-founder and Chief Technology Officer at AirShark, a UAV service provider with flight operations across New England. Originally trained as a photographic engineer, Ian has used that experience to help the team at AirShark offer comprehensive aerial data solutions through commercial and custom-built UAVs. With experience dating to the beginning of the U.S. commercial UAV industry, Ian has deep knowledge of the ever-changing UAV landscape.

11:15 AM - 12:15 PM
Pierce Room

0.25 NH LLS CEUs



Lunch

WORKSHOPS ★ FRIDAY, DECEMBER 2nd

NHLSA 47th Annual Meeting & Equipment Show

(12) Exclusive Viewing of Exhibit Hall

This is a great opportunity to see some of the latest products and services the vendors have to offer. You will have the opportunity to see demonstrations, ask questions and perhaps make a purchase or two. You just may find that key piece of information, a helpful hint, or some new equipment that you were looking for to help you out with that tough project back at the office.

If you make a point to stop by each booth, the vendors will stamp your vendor card provided at sign in, and you will receive the 0.5 CEU credit for your time spent. See page 13 for a list of reserved exhibitors.

12:00 PM - 2:00 PM
Salon A/B/C

0.50 NH LLS CEUs

Thank You 2016 Exhibitors

(13) Surveying in Floodplains

Jennifer Gilbert
Senior Planner, NH Office of Energy & Planning

Jennifer will provide an overview of the National Flood Insurance Program, and information, resources, and tips for surveyors and engineers on using and revising the floodplain maps through the FEMA Letter of Map Change process, and completing the FEMA Elevation Certificate.

Jennifer has been New Hampshire's state coordinator for FEMA's National Flood Insurance Program since 2005. For six years prior, Jennifer worked as an environmental planner for engineering consulting firms preparing environmental reports and conducting public outreach activities for both highway and airport projects. Jennifer has a B.S. in Environmental Planning and Environmental Science from the University of Wisconsin—Green Bay and a M.A. in Urban and Regional Planning from the University of Wisconsin - Milwaukee. Jennifer is a Certified Floodplain Manager (CFM[®]) and an Associate in National Flood Insurance (ANFI[™]).



2:00 PM - 4:00 PM
Merrimack Room

0.50 NH LLS CEUs

Note: See page 12 for DES approved credits.

(14) Wetlands Bureau and Shoreland Program Legislative Update

Jay Aube
Shoreland Program Outreach Coordinator
NH Dept. of Environmental Services,
Wetlands Bureau, Shoreland Program

This presentation will provide a general overview of the Shoreland Water Quality Protection Act and emphasis will be placed on the recent amendments effective August 28, 2013. Other focus areas will include vegetation removal limitations, the permitting process, impervious surface limitations, and storm-water management.

Jay has helped implement this program for over five years. He is a former environmental consultant and middle-high school science teacher with a strong background in Environmental Biology and Chemistry.



Collis G. Adams, CWS, CPESC
Wetlands Bureau Administrator
Dept. of Environmental Services

Mr. Collis Adams, CWS will provide an update on the current status of legislature activity and rulemaking relative to wetlands.

Collis currently serves as Administrator of the NHDES Wetlands Bureau and brings with him 20+ years of professional experience in both public and private sectors. He was appointed to his current position in June of 2001 and formerly worked in the Subsurface Section and the Site Specific Section. Collis brings a breadth of knowledge and in-depth understanding on site development issues to his current position as Administrator of the Wetlands Bureau.

2:00 PM - 4:00 PM
Concord Room

0.50 NH LLS CEUs

Note: See page 12 for DES approved credits.

Note: Permitted Sewage Disposal System Designers & Installers and Wetland Scientists—to receive credit, you must note your license number on the sign in/out sheets.

WORKSHOPS ★ FRIDAY, DECEMBER 2nd

NHLSA 47th Annual Meeting & Equipment Show



Afternoon Break

(15) Utilizing Web-Based Enterprise Solutions

Keith Grittner
Steve Plamondon

Secure Project Management and Services MAGNET Enterprise is a web browser environment that runs with individual windows which allows complete configuration of how you like to work, so that you have what you need, where and when you need it. All it takes is a web browser to communicate, collaborate, and exchange data.

Features & Benefits:

- ◆ Secure Cloud Storage
- ◆ Geo-referenced projects for team-based collaboration
- ◆ Exchange data between project site and office in real time
- ◆ Track unlimited projects (based on available storage)
- ◆ Asset Manager tracks your entire inventory of instruments
- ◆ Live Chat with multiple members simultaneously
- ◆ View survey results of points and lines on top of Google Map(r) imagery

Cloud-based projects for companywide collaboration
Data exchange between field and office.

Keith joined Topcon Solutions Store as the Technical Sales Associate for Maine and NE New Hampshire, in October of 2014. He has over 7 years of experience with Topcon technology solutions, service, and support. His knowledge of machine control and survey solutions makes him a valuable partner in the industry.

Steve has nearly 3 decades of industry experience in New England. His current focus is on Topcon's UAV and scanning products and software.

2:00 PM - 4:00 PM
Capital Room

0.50 NH LLS CEUs

(16) Metadata and Other Stuff We Don't Want to Have to Think About

Daniel Martin

Encore Presentation.

2:00 PM - 4:00 PM
Pierce Room

0.50 NH LLS CEUs

DEPARTMENT OF ENVIRONMENTAL SERVICES

DES has approved credits for the following sessions, for septic designers & installers and wetland scientists.

Session 3—1 credit
Session 6—3 credits (mandatory)
Session 13—2 credits
Session 14—2 credits

Reminder: Permitted Sewage Disposal System Designers & Installers and Wetland Scientists—to receive credit, you must note your license number on the sign in/out sheets.

Thank you for attending!

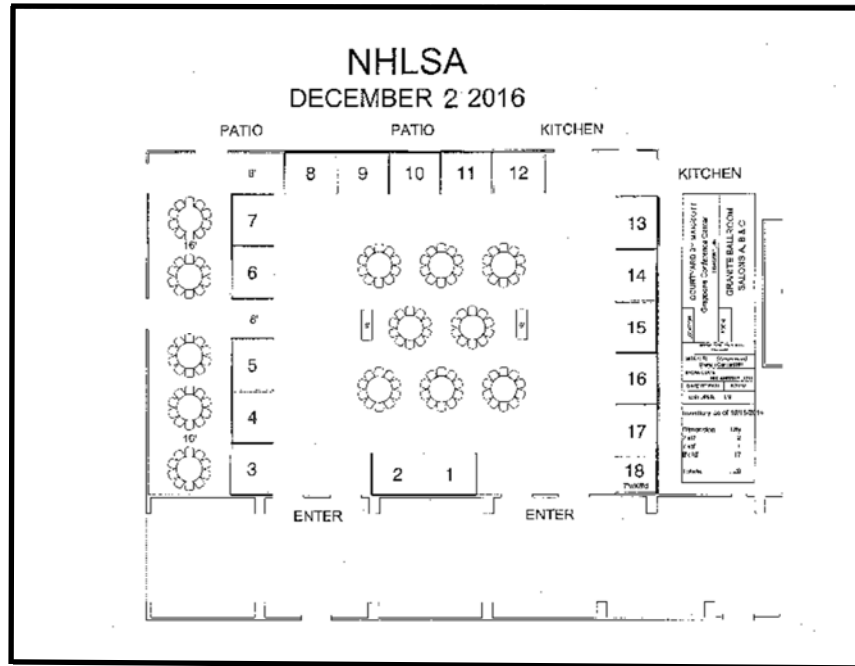
Thank You To Our Sponsors!

THANK YOU

EXHIBITORS

NHLSA 47th Annual Meeting & Equipment Show

SALON A/B/C



Booth: Exhibitor

- ◆ 1 & 2: Maine Technical Source
- ◆ 3: NHLSF Museum Pieces presented by NHLSA Past Presidents Assembly
- ◆ 4 & 5: Keystone Precision Instruments
- ◆ 6 & 7: Spiller's
- ◆ 8: National Geodetic Survey
- ◆ 9: **OPEN**
- ◆ 10: Airshark
- ◆ 11 & 12: Topcon Solutions Store
- ◆ 13: Eastern Topographics
- ◆ 14: Carlson Software
- ◆ 15: CADNET Services
- ◆ 16: WSP / PB
- ◆ 17: Presby Environmental
- ◆ 18: National Society of Professional Surveyors

Exhibit Hours Set-Up

Installation
Thursday, December 1
9:00 PM - 11:00 PM

Friday, December 2
6:00 AM - 8:00 AM

Dismantle
Friday, December 2
3:30 PM - 4:00 PM

Exhibit Hall Activity

Continental Breakfast
Friday
7:30 AM

Morning Break
Friday
10:00 AM

Ahhh— The smell of fresh popcorn!

Lunch w/Exhibitors

**Session 12:
Exclusive Viewing
of Exhibits**

12:00 PM - 2:00 PM

Afternoon Break
Friday
3:00 PM

HOTEL INFORMATION

NHLSA 47th Annual Meeting & Equipment Show

The Courtyard Marriott & Grappone Conference Center, 70 Constitution Avenue, Concord, NH 03301. Phone: 603-225-0303, Fax: 603-225-8916. **Room Rate \$109.00+tax/night.**

ROOM RESERVATION DEADLINE:

Reservations must be received on or before **November 9, 2016**. At this date, the hotel will review reservation pick up for the event and release the unreserved rooms for general sale.

OVERNIGHT RESERVATION OF ROOMS:

1. A block of guestrooms is reserved for use of the NHLSA Meeting/Show at group rates.
2. Individuals are responsible for securing their own reservations from this group

Identify yourself as attendees of the NHLSA Group in order to receive the discount.

1. Check in is at 3:00 pm and check out is 12:00 noon.
2. Cancellation, late arrival or special arrangements should be made directly with the Courtyard Marriott.
3. Complimentary on-site parking.

Directions to Hotel: Hotel is located off Rte 93, Exit 15W. Turn right at the first stoplight onto Commercial Street. Follow Commercial Street 1/4 mile to Constitution Avenue.

If you need further information, check out the hotel website at:

<http://www.marriott.com/hotels/travel/mhtcn-courtyard-concord/>

Banquet and Meeting Room Layout

Courtyard by Marriott
Grappone Conference Center
70 Constitution Avenue | Concord NH | 03301
603-225-0303 | www.grapponeconferencecenter.com

Meeting and Banquet Rooms	Dimensions	Square Feet	Classrooms	Plaster	Conference	AV Stage	Banquet	Seating
Granite Ballroom	38-66	8,500	400	600	N/A	N/A	470	800
Salon A	32-66	2,170	100	200	50	40	150	200
Salon B	32-66	2,170	100	200	50	40	150	200
Salon C	32-66	2,170	100	200	50	40	150	200
Merimack	28-22	616	30	60	25	20	40	75
Concord	28-23	644	30	60	25	20	40	75
Capital	28-17	476	20	50	20	15	30	50
Constitution (at Courtyard)	26-24	625	30	60	25	20	40	75
Pre-Function Space	22-154	3,388						
State Rooms		2,717	120	225	50	N/A	160	300
Pierce	32-24	1,128	50	100	30	25	90	100
Webster	32-25	1,804	60	125	30	25	70	150

Spouses & Guests

Shopping is available nearby at the Steeplegate Mall. Another shopping location is downtown Concord with a variety of shops.

Other area attractions include the State Capitol, located at 107 North Main Street. Concord is the state capital and is home to the oldest state capitol building in the United States.

The new McAuliffe-Shepard Discovery Center is a lively science center featuring 21st century interactive exhibits on aviation, astronomy, Earth and space sciences, a state-of-the-art planetarium and a variety of science and engineering programs. The Discovery Center is open seven days a week. For show times, topics and reservations call 603-271-7827 or check out www.starhop.com.

The Museum of New Hampshire History is located at 6 Eagle Square and is open from 9:30am thru 5pm. Admission is \$7.00 for adults, \$4.50 for seniors, and \$3.00 for children ages 6-18.

This Museum features exhibits on everything from Native American remains to the Concord stage-coach. An interesting trip through this scenic state's history. Check out their website at:

www.nhhistory.org/museum.

COURTYARD
Marriott

CONCORD

Grappone Conference Center
70 Constitution Avenue
Concord, NH 03301
(603) 225-0303
Fax: (603) 225-8916

Hotel Site:
www.courtyardconcord.com


Conference Center Site:
www.GrapponeConferenceCenter.com

2016 NHLSA CONVENTION REGISTRATION

*****BEST VALUE*****

NHLSA 47th Annual Meeting & Equipment Show

Early Bird Full Registration
Before November 11th—\$275/\$375

<input checked="" type="checkbox"/> () LS () Associate () Affiliate () Student () Non-Member				
Name		Guest Name		
Company		Phone ()	Fax ()	
Address		Email Address		
City	State	Zip	Name on Badge	
Member* <input checked="" type="checkbox"/> () NHLSA () CALS () MALSCE () MSLS () RISPLS () VSLS () NYSAPLS <small>*Member includes all Northeast State Societies (If member in multiple states, check home state)</small>				
#	REGISTRATION	Member	Non-member	TOTAL
	Early Bird Full Registration—before Nov. 11th	\$275.00	\$375.00	\$
	Full Registration—after Nov. 11th	\$325.00	\$425.00	\$
	Thu All Day (see below)	\$200.00	\$300.00	\$
	Thu Seminar Only (includes breaks & lunch)	\$175.00	\$275.00	\$
	Fri Only (see below)	\$175.00	\$225.00	\$
	Friday Special Offer - Affiliate & Student Members - First ten (10) registration forms received (two per company limit)		N/C	\$
		Banquet & Benefit Auction Only or Additional Tickets	\$60.00	\$
BANQUET CHOICE () Rib Eye () Chicken Statler				
	Thu or Fri Lunch Ticket (includes breakfast & breaks)		\$50.00	\$
	Equipment Show Only (lunch ticket & CEUs not included)		N/C	\$ N/C
	Annual Meeting		N/C	\$ N/C
	Past Presidents' Breakfast		N/C	\$ N/C
Thursday All Day —includes workshops, continental breakfast, breaks, lunch, banquet & benefit auction Friday Only —includes workshops, continental breakfast, breaks, lunch, & equipment show			Total Payment Due \$	
<div style="border: 1px solid blue; padding: 5px; color: blue; font-size: small;"> Receive 20%* off for five (5) or more members or employees from the same company *20% discount only applies to Full Registration, or One-Day Only Registration </div>			<div style="border: 1px solid black; padding: 5px;"> <p style="text-align:center; color: red; margin: 0;">Cancellation Policy</p> <p style="font-size: x-small; margin: 0;">Written cancellation request must be postmarked 20 days in advance for 100% refund.</p> </div>	
<p style="text-align:center; color: red; margin: 0;">Included in Full Registration</p> <ul style="list-style-type: none"> ◆ Two Days of Workshops with Continuing Education Units ◆ Continental Breakfast (2) ◆ Morning & Afternoon Breaks (2) ◆ Lunch (2) ◆ Banquet & Benefit Auction ◆ Equipment Show 			 <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p style="color: red; margin: 0;">Hotel Reservation Deadline</p> <p style="font-size: x-small; margin: 0;">Courtyard Marriott Grappone Conference Center 70 Constitution Avenue Concord, NH 03301 603-225-0303 November 9, 2016 Identify Affiliation with NHLSA</p> </div>	
<div style="border: 1px solid black; padding: 2px;"> Method of Payment </div>				
Check (payable to NHLSA) () CHECK # _____ VISA () MASTERCARD () AMERICAN EXPRESS () DISCOVER ()				
Credit Card Number _____			Exp. Date ____/____	
Name Appearing on Card _____		Address if different from above _____		
Signature _____			Today's Date ____/____/____	
CARDMEMBER ACKNOWLEDGES RECEIPT OF GOODS AND SERVICES IN THE AMOUNT OF THE TOTAL SHOWN HEREON AND AGREES TO PERFORM THE OBLIGATIONS SET FORTH BY THE CARDHOLDERS AGREEMENT WITH THE ISSUER.			Auth # _____ <small>Office Only</small>	
<ul style="list-style-type: none"> ◆ All registrations must be accompanied with payment ◆ Reservations cannot be taken by phone. ◆ Send both pages ◆ Only one person and guest per registration form ◆ Make copies if needed 			<p style="color: red; margin: 0;">Mail or FAX Form (do not email credit card info)</p> <p style="margin: 0;">New Hampshire Land Surveyors Association (NHLSA) PO Box 689 Raymond, NH 03077-0689 Phone: 603-895-4822 Fax: 603-386-6856 Email for inquiries: info@nhlsa.org Website for brochure: www.nhlsa.org</p>	

WORKSHOP SELECTION

NHLSA 47th Annual Meeting & Equipment Show

WORKSHOPS

Thursday, December 1, 2016		
✓	#	Title · Room · Times · Continuing Education Units
	1	Salon A · Unwritten Rights in Land with Emphasis on Acquiescence · 8:00 AM - 4:00 PM · 2.0 NH CEUs
Friday, December 2, 2016		
	2	How SUE Can Provide for Better Design· Merrimack Room · 8:00 AM - 9:00 AM · 0.25 NH CEUs
	3	Environmental Regulations & Compliance · Concord Room · 8:00 AM - 9:00 AM · 0.25 NH CEUs
	3	DES Approved · 1.0 Credit
	4	Metadata and other stuff we don't want to have to think about · Capital Room · 8:00 AM - 10:00 AM · 0.50 NH CEUs
	5	Accessing Airborne Light Detection... · Merrimack Room · 9:00 AM - 10:00 AM · 0.25 NH CEUs
	6	Subsurface Systems Bureau Update · Concord Room · 9:00 AM - 12:00 PM · 0.75 NH CEUs
	6	DES Approved · 3.0 Credits
	7	Northeast Surveying Societies (NESS) Roundtable · Pierce Room · 9:00 AM - 10:00 AM · 0.25 NH CEUs
	8	Basic Survey Research Review · Merrimack Room · 10:15 AM - 12:00 PM · 0.50 NH CEUs
	9	Carlson Software - Tips & Tools for Creating Surfaces · Capital Room · 10:15 AM - 12:00 PM · 0.50 NH CEUs
	10	Women in Surveying · Pierce Room · 10:15 AM - 11:15 AM · 0.50 NH CEUs
	11	Intro to UAV (Mapping) Operations · Pierce Room · 11:15 AM - 12:15 PM · 0.25 NH CEUs
	12	Exclusive Viewing of Exhibit Hall · Salon A/B/C · 12:00 PM - 2:00 PM · 0.50 NH CEUs
	13	Surveying in Floodplains · Merrimack Room · 2:00 PM - 4:00 PM · 0.50 NH CEUs
	13	DES Approved · 2.0 Credits
	14	Wetlands Bureau and Shoreland Program Legislative Update · Concord Room · 2:00 PM - 4:00 PM · 0.50 NH CEUs
	14	DES Approved · 2.0 Credits
	15	Utilizing Web-Based Enterprise Solutions · Capital Room · 2:00 PM - 4:00 PM · 0.50 CEUs
	16	Metadata (Encore) · Pierce Room · 2:00 PM - 4:00 PM · 0.50 NH CEUs
Reminder: Badge & meal tickets required for all events!		

CONVENTION REGISTRATION

IMPORTANT—Please help our speakers plan their handout material by filling out which workshops you plan to attend.

Please fill out both sides of the two-page registration form completely, and mail with payment to NHLSA. If paying by credit card, fax both sides.

EARLY BIRD FULL REGISTRATION—Save \$50 by registering before November 11th!

Thank You 2016 Presenters

NHLSA BOOKSTORE ~ NHLSF BENEFIT AUCTION

NHLSA 47th Annual Meeting & Equipment Show

NHLSA BOOKSTORE

Don't forget to stop by the traveling NHLSA Bookstore during the breaks and free time. This is the perfect time to save that 20% shipping & handling charge. Barbara and our devoted volunteers will have a mini bookstore set up in the pre-function area and will be selling all of the books and merchandise that you can normally purchase on the NHLSA website. With the end of the year right around the corner, books and reference material may also be good tax deduction business expenses for you, and if you are an aspiring surveyor, some of these books will be invaluable to you in preparing for your exam!

In addition to the reference books we've also got items like brass discs, lapel pins, and belt buckles. The belt buckles (with proceeds going towards the Scholarship Fund) are numbered sequentially, so if your license number falls between 194-513, you may be able to get a buckle with your license number on it.



Feel free to drop off your item and form at the registration table.

Thank You for your Support!!

Please help in our recordkeeping by using the form below when donating an auction item, door prize, or raffle prize. Thank you for your cooperation and generosity!

.....

BENEFIT AUCTION DONATION PLEDGE FORM
Don't miss the Fun, Food and Action at the NHLSA Benefit Auction!
Live Auction Thursday with Terry Eldredge 8:00 - 9:00 PM (beginning during banquet dessert)
Silent Auction begins Friday morning (winners announced end of day)
 Use this form to make a donation to our Benefit Auction. Please complete the information below and return via fax, email or mail to **NHLSA** Office: 603-386-6856; info@nhlsa.org; PO Box 689, Raymond, NH 03077-0689.

Name / Company		Phone ()	
Address		Fax ()	
City	State	Zip	
Item	Fair Market Value	\$	

Please include a brief description of the item (s) to be used by auctioneer. [List additional items on separate piece of paper.](#)

DOOR PRIZE DONATION:

RAFFLE DONATIONS

Small items welcome for mini-raffle, drawing during Friday afternoon break
 50/50 raffle held throughout both days, closes at 2:00 pm before afternoon sessions, drawing during break